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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,055	02/19/2002	Seung-Hwan Moon	6192.0234.AA	8407

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EXAMINER

LAO, LUN YI

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,055

Applicant(s)

MOON, SEUNG-HWAN

Examiner

Lao Y Lun

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Specification

1. The disclosure is objected to because of the following informalities:

The recitation of "a divided voltage V_B " need to be changed to – a third voltage V_B – on paragraphs 39 and 40 so a reader will easily understand the third voltage as cited in claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui(5,754,150) in view of Kastan et al(5,109,219).

Matsui teaches an LCD display having a variable resistor, wherein the variable resistor varies voltage application being a function of variation viewing angle(luminance)(see figures 2, 3, 8, 11, 12; abstract; column 2, lines 34-54; column 4,

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lines 56-65 and column 10, lines 7-53) and a liquid crystal gamma curve corresponding to the viewing angle(see figures 3, 12; column 2, lines 34-54 and column 10, lines 4-43).

Matsui fails to disclose a notebook computer.

Kastan et al teach an since the LCD used in a notebook computer(see column 1, lines 14-30). It would have been obvious to have modified Matsui with the teaching of Kastan et al, since the LCD display having be reduced in the depth weight and power dissipation comparing to a CRT display.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui(5,754,150) in view of Kastan et al(5,109,219) and Ferrel et al(6,628,255).

Matsui as modified fail to disclose the variable resistor for changing the viewing angle of a display mounted on a hinge of the LCD display.

Ferrel et al teach a resistor for varying the viewing angle of an LCD display mounted on a hinge of the LCD display(see figure 1; column 1, lines 61-68 and column 2, lines 1-7). It would have been obvious to have modified Matsui as modified with the teaching of Ferrel et al, so as to provide more convenience for a user to adjust the view angle by a user's thumb when a user holding a computer.

Allowable Subject Matter

5. Claims 1-12 and 15-16 are allowable.

Claims 1-7 are allowable since none of cited referenceteach an LCD display a voltage divider converting a level of the second voltage based on a viewing angle of an

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LCD display panel to generate a third voltage and a viewing angle information generator receiving the first voltage and third voltage and generating viewing angle information(see figure 3, with all other limitations cited in claims 1 and 6.

Claims 10-12 are allowable since none of cited reference teach an LCD display for feeding analog driving voltage having the lower level(VF) back to a second input terminal of the driving voltage generator(100)(see figure 8).

Response to Arguments

6. Applicant's arguments filed on April 29, 2004 have been fully considered but they are not persuasive.

Applicant argues that Matsui does not teach the variable resistor varies a voltage applied to the liquid crystal in response to variation of a view angle on page 12-13. The examiner disagrees with that since Matsui teach when the variable resistor varies a voltage(common voltage) applied to the liquid crystal in response to a variation of a view angle; e.g. when a user wants to change a view angle(luminance), a user could changing a variable resistor by manually adjusting a dial(see figures s, 3, 8-12; abstract; column 2, lines 36-55 and column 10, lines 5-26).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Kaneko et al(6,323,847) teach a view angle correction circuit for a display device.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

December 13, 2004


Lun-yi Lao
Primary Examiner